

KVAPIL, Miroslav

Colorimetric determination of phosphorus in ferrovanadium. Rudy  
10 no.6:Suppl.:Prace vysk ust no.5:33-34 Je '62.

1. Ustav pro vyskum rud, Praha.

PAVLIKOVÁ, E.; KVAPIL, M.; WEISS, D.

Chemical analysis of barite. Rudy 10 no. 4:Suppl.13-18. Ap '62.

1. Ustav pro vyzkum rud, Praha.

PAVLIKOVA, E.; KVAPIL, M.; WEISS, D.

Contribution to the chemical analysis of tetrahedrite.  
Rudy 11 no.3:Suppl.: Práce výzkumných ústavů no.2:9-13 Mr '63.

1. Ústav pro výzkum rud, Praha.

KVAPIL, Oldrich

A higher labor productivity in agricultural production. Vestnik CSAZV  
8 no.9:488-489 '60. (EEAI 10:3)  
(Czechoslovakia--Agriculture)

KVAPIL, O.

CZECHOSLOVAKIA

KVAPIL, O., DVM

Louny

Prague, Veterinarstvi, No 3, 1963, pp 124-125

"Reminders to Designate Quality of Pork Fat."

KVAPIL, Otakar, MVDr.

Methods of lard sampling for determining its use in making products. Prum potravín 15 no.11:589 N '64.

1. Central State Institute of Veterinary Medicine, Meat Department, Louny.

KVAPIL, R.

"Calculating the Dynamic Effects of the Conic and Jaw-Crusher Operation." p. 109.  
(Rudy, Vol.1, No.7, Sept. 1953, Praha.)

Vol. 3, No. 3.

SO: Monthly List of East European Accessions,/Library of Congress, March 1954, Uncl.

KVAPIL, R.

"Principles of Design for Ball Mills." p. 13 (RUDY, Vol. 2, No. 1, Jan. 1954) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.



KVAPIL, R.

"Fundamentals of Compressors, Diesel Motors, and Steam Engines." p. 101, Praha, Vol. 2, no. 4, Apr. 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

KVAPIL, R.

"Elements of turbine poser units." Technicka Praca, Bratislava, Vol. 6, No. 1, Jan. 1954, p. 41.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

KVAPIL, R.

Methods for solving problems of earth pressure. p. 146.

Surveys of boring systems in Czechoslovakia. p. 148.

RUDY, Praha, Vol. 3, no. 5, May 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

KVAPIL, R.

✓5169. THEORY OF ROCK PRESSURE: NEW CONCEPTIONS AND RESEARCH. KVAPIL,  
R. (Univ. (Coal, Prague), Aug. 1956, 259-355).

Kvapil, R.

Problems regarding the most advantageous construction of parabolic underground vaults. p. 23. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 4, no. 1, Jan. 1956.

Source: EEAL LC

Vol. 5, No. 10

Oct. 1956

KVAPIL, R.

Determination of natural vaults and the loose area over cavities caused by  
mining. p. 105

RUDY Vol. 4, no. 4, Apr. 1956

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

KVAPIL, Rudolf

Nove nazory v theorli horskych tiaku a dulnich otresu. (New Theories on Rock Pressure and Mine Earthquakes. 1st ed. German and Russian summaries, illus., bibl.) Prague, SNTL, 1957. 132 p.

The study has three parts. It contains information on the results of the research in the field of the pressure of rocks, on their new theories and on earthquakes in mines. It is an abridged version of a more extensive book to be published.

Bibliograficky katalog, CSR, Ceske knihy, No. 31. 10 Sept 57. p. 664-65.

KVAPIL, R.

A contribution to the basic research on earth pressure and mine quakes. p. 73.  
(Uhli, Vol. 7, no. 3, Mar. 1957, Praha, Czechoslovakia.)

S0: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.  
Uncl.



KVAPIL, R.

Crumbling of rocks from the point of view of potential energy. Pt. 1.

P. 285. (UHLI.) (Praha, Czechoslovakia) Vol. 7, No. 9, Sept. 1957

SO: Monthly Index of East European Accession (MEAI) LC. Vol. 7, No. 5, 1958

KVAPIL, RUDOL'F [Kvapil, Rudolf], doktot inzh. (Chexhoslovakiya).

Mine bump theory. Ugol' 33 no.5:46-48 My '58. (MIRA 11:5)  
(Czechoslovakia--Subsidence (Earth movements))

KVAPIL, R.

Problem of designing storage bins for loose, loose, partly and nonpourable materials. p. 392.

ENERGETIKA, Praha, Czechoslovakia, Vol. 9, no. 8, Aug. 1959

Monthly list of East European Accessions. (EEAI) LC, Vol. 8, No. 10  
Oct. 1959  
Uncl.

KVAPIL, R., dr., inz.; LUFFER, K., inz.

Distribution of pressure in irregular experimental ores used for  
crushing tests. Rudy 9 no.11:382-384 N '61.

(Ores)

KVAPIL, R. (Chekhoslovatskaya Sotsialisticheskaya Respublika);  
LYUFFER, K. (Chekhoslovatskaya Sotsialisticheskaya Respublika)

Distribution of stresses in irregularly shaped specimens in  
determining the hardness of rocks under pressure. Ugol' 38  
no. 4:58-60 Ap '63. (MIRA 16:4)

(Rocks—Testing) (Strains and stresses)

KVAFIL, V.

"Machines Used To Solve Complicated Mathematical Problems." p. 100  
(Matematiko-Prirodovedecke Rozhledy. Vol. 32, No. 4, 1953, Praha.)

SO: Monthly List of East European Accessions, Vol. 3, No. 3.  
Library of Congress, March 1954, Uncl.

L 26754-66 EWT(m)/EWA(d)/EWP(t) IJP(c) JD/JG

ACC NR: AP6011471

SOURCE CODE: UR/0070/66/011/002/0289/0294

AUTHOR: Timofeyeva, V. A.; Kvapil, Y. 57ORG: Institute of Crystallography, AN SSSR (Institut kristallografii AN SSSR) 13TITLE: On the solubility and crystallization of  $Y_3Al_5O_{12}$  from solutions in melts of  $PbO-B_2O_3$  and  $PbO-B_2O_3-PbF_2$ 

SOURCE: Kristallografiya, v. 11, no. 2, 1966, 289-294

TOPIC TAGS: garnet, crystal growing, yttrium compound, aluminum compound, crystallization, solubility, temperature dependence 27 27 18

ABSTRACT: The authors investigated the solubility of the yttrium-aluminum garnet in low-volatility melts by a simple procedure, based on introducing a small primer crystal of the dissolved substance ( $Y_3Al_5O_{12}$ ) and checking whether the solution is undersaturated or supersaturated by seeing whether the primer melts or causes precipitation of a larger crystal. The temperature dependence of the solubility is determined by the same method. The results show that in the same temperature region the solubility of  $Y_3Al_5O_{12}$  is higher in  $PbO-B_2O_3-PbF_2$  than in  $PbO-B_2O_3$ . The method can be used to grow  $Y_3Al_5O_{12}$  crystals with the aid of primers, to estimate approximately the equilibrium state of the system, and to outline the stable regions of crystallization in the multi-component system  $Y_2O_3-Al_2O_3-PbO-B_2O_3-PbF_2$ . Related to this procedure is a method described for determining the saturation of the solution, consisting of dropping a rod of platinum into the melt and drawing it out so as to pro-

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UDC: 548.5

I 26754-66

ACC NR: AF6011471

duce a microscopic crystal of the substance by quenching. It is concluded that the quenching method can be used for an approximate estimate of the state of equilibrium of the system but for more accurate data it is necessary to use trial primers as originally employed. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 20/ SUBM DATE: 24 May 65/ ORIG REF: 003/ OTH REF: 008

Card 2/2 *IV*



KVAPIL, V.

New construction of freight cars. p.242.

ZELENZNICNI DOPRAVA A TECHNIKA. (Ministerstvo dopravy)  
Praha, Czechoslovakia  
Vol. 7, no. 8, 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11.  
Nov. 1959  
Uncl.

KVAPIL, Vaclav, inz.

Railroads and shippers. Doprava 7 no.2:99-100 '65.

SOKOL, L.; KVAPIL, Z.; KARAS, V.

Combining the gas chromatography and the absorption spectra methods for the analysis of organic substances. Part 2: Identification of ketones, aromatic carbohydrates and nitriles in the extracts from carbonization benzene. Coll Cz Chem 26 no.9:2278-2288 '61.

1. Forschungsinstitut für die chemische Verwertung der Kohle, Záluží v Krásném Horách.

(Chemistry, Organic) (Chromatography)  
(Absorption spectra)

KUBICKA, Rudolf; KVAPIL, Zdenek; SYKORA, Milan

Pyrolysis of xylénols and tar fraction. Chem prym 12 no.11:598-601  
N '62.

1. Chemicke zavody CSSP, Zaluži.

KVAPILEV, A.I., kand. sel'khoz. nauk; SEREBRYAKOV, K.M., nauchnyy sotrud.;  
DEMINA, M.F., kand. biolog. nauk; ZUSMAN, N.S., kand. biolog. nauk;  
LEPESHKIN, V.I., nauchnyy sotrud.; LEONTYUK, S.V., kand. veter. nauk;  
GUSEV, S.A., kand. veter. nauk; DOBYCHINA, I.N., red.; PROKOF'YEVA,  
L.N., tekhn. red.

[Rabbit raising] Krolikovodstvo. Moskva, Gos. izd-vo sel'khoz. lit-  
ry, 1960. 311 p. (MIRA 14:9)

1. Sotrudniki Nauchno-issledovatel'skogo instituta pushnogo zverov-  
vodstva i krolikovodstva (for all except Dobychina, Prokof'yeva).  
(Rabbits)

PETROVICKY, Oldrich, MUDr.,; KVAPILIK, Josef, MUC

Experience with toxoplasmin test on the basis of allergometric studies at the state psychiatric hospital at Kromeriz. Cas. lek. cesk. 44 no.34-35:933-937 26 Aug 55.

1. Z neurologické kliniky lékařské hygienické fakulty Karlovy university Praha, SFN Praha XII. Prednosta prof. MUDr. Jan Sebek  
Ze Statni psychiatrické léčebny v Kromerizi. Reditel MUDr. Antonin Pliskal.

(TOXOPLASMOSIS, diagnosis

toxoplasmit test, allergometric studies in mental hosp. in Czech.)

KVAPILIK, Josef

The importance of Dr. Genek Navrat for Moravian psychiatry.  
Cesk. psychiat. 57 no.6:402-404 '61.

1. Psychiatricka lecebna v Kromerizi.  
(BIOGRAPHIES) (PSYCHIATRY)

KVAPILIK, Z.

Vasicek, Z. Installing AGY conductors using new installation materials. p. 389.  
ELEKTROTECHNIK, Prague, Vol. 10, no. 12, Dec. 1955.

S0: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956,  
Uncl.



KVAPILIK, Z.

Assembly of glass pipes in the installation of electric systems. p.265.  
(Pozemni Stavby, Vol. 5, No. 5, May 1957, Prava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

KVAFILIK, Z.; VASICEK, Z.

The development of clips to hold electric wiring conduits.

p. 230 (Elektrotechnik) Vol. 12, no. 7, July 1957 Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, no. 1, Jan. 1958

KVAPILIK, Z.; ELLINGER, K.

Fasting, a new method for fastening electric installations in dwellings. p. 268.

POZEMNU STAVBY. (Ministerstvo stavebnictví) Praha, Czechoslovakia. Vol. (7)  
no. 5, (May) 1959

Monthly List of East European Accessions (EEA), LV, Vol. 8, no. 7, July 1959  
Uncl.

KVAPILIKOVA, K.

Surgical therapy of glaucoma with concentric narrowing of the visual field. Cesk. oftal. 20 no.6:449-452 N '64.

1. Oční klinika lékařské fakulty University J.E. Purkyně v Brně, (prednosta prof. dr. J. Vanysek, DrSc).

KVAPILIKOVA, Kveta

Motility disorders in unilateral aphakia and their correction with contact lenses. Cesk. oftal. 18 no.3:212-126 My '61.

1. Oční klinika University J. Ev. Purkyně v Brně, předn. prof. dr. Jan Vanysek.

(LENS CRYSTALLINE abnorm) (CONTACT LENSES)

KVAPILIKOVA, Kveta

Results of the surgical treatment of strabismus in adults. Cesk.  
oftal. 18 no.2:112-115 Mr '62.

1. Oeni klinika University J. Ev. Purkyne v Brne, prednosta prof.  
dr. Jan Vanysek.

(STRABISMUS surg)

KVAPILIKOVA, Kveta

Binocular vision following the implantation of intracameral lenses.  
Cesk. oftal 18 no.3:207-211 My '62.

1. Oční klinika University J. Ev. Purkyně v Brně, přednosta prof.  
dr. Jan Vanysek.  
(LENSES) (LENS CRYSTALLINE abnorm)

VANYSEK, J., prof. dr., DrSc.; KVAPILIKOVA, K.

Early and late experiences with intracameral lenses. Cesk. oftal.  
21 no.3:159-166 My '65

1. Oční klinika lékařské fakulty University J.E. Purkyně v Brně  
(prednosta: prof. dr. J. Vanysek, DrSc.).



KVAPILOVA, A.

"Bulls and cattle breeding."

p. 22 (Rolnicke Hlasy) No. 1, Jan. 1958  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

KVAPILOVA, A.

Do you want more pork?

P. 20. (RODNICE HLASY) (Praha, Czechoslovakia) Vol. 11, No. 12, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

CZECHOSLOVAKIA

HANAKOVA, S., KVAPILOVA, I., MINARIK, L: Physiological Institute  
Medical Faculty, Palacky University (Fysiologicky Ustav Lek.Fak.  
P.U.) Olomouc.

"Extension of Anesthesia Duration by Hyperventilation with Atmospheric Air."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 72.

Abstract: Use of an extension of anesthesia induced by thiopental after premedication with atropine-lobeline to influence CNS activity is discussed. The extension of anesthesia is connected to hyperventilation hypocapnia. It appears that the effect is due to hypocapnic vasoconstriction in the cerebral region. No references. Submitted at the "16 Days of Physiology" at Kosice, 29 Sep 65.

1/1

APPROVED FOR RELEASE: 06/19/2000  
CIA-RDP86-00513R000928310008-0

A new method of preparing pertussis vaccine. Cesk. epidem. mikrob. imun. 10 no.5:314-322 5461.

1. Ustav ser a ockovacich latek v Praze.  
(WHOOPING COUGH immunol) (VACCINES)

60053-65 EWT(d)/EWP(1) Pg-4/Pk-4/Pl-4/Pa-4/Pq-4 LJP(c) BC  
 ACCESSION NR: AP5018385 PO/0019/65/014/002/0261/0270  
 621.3.01:517.94 35  
 34  
 B  
 AUTHOR: Kvapish, M.  
 TITLE: Determination of the impulsive response and transfer functions of linear systems with varying parameters  
 SOURCE: Arhivum elektrotehniki, v. 14, no. 2, 1965, 261-270  
 TOPIC TAGS: varying parameter system, linear system transient, transfer function, successive approximation, frequency analysis, variable network, linear control system, circuit analysis, impulsive response  
 ABSTRACT: The study of systems with variable parameters has become very important in connection with problems of automatic control and communications. Consequently, the method of successive approximations proposed by L. A. Zadeh (Journ. App. Ph., 1950, v. 21, p. 1171; Ibid., 1951, v. 22, p. 783-786) for the establishment of the impulsive responses and transfer functions is investigated. In this paper, the author presents the sufficient conditions for the convergence of the appropriate successive approximations of the transients and transfer functions of the system. He also discusses those initial conditions which are satisfied by the transfer function. Orig. art. has 45 formulas.

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L 60053-65

ACCESSION NR: AT5018385

ASSOCIATION: Kafedra Matematiki I Gdan'skogo Politekhničeskogo Instituta (Department of Mathematics, First Gdansk Polytechnic Institute)

SUBMITTED: 19Oct64

ENCL: 00

SUB CODE: IE, MA

NO REF SOV: 002

OTHER: 008

*bjp*  
Card 2/2

AFIMOVA, I.M.; KVAFIMOVSKY, V.F.

Spectrophotometric study of copper, nickel, and cobalt diuretic  
complexes of some peptides. Vest.Mosk.un.Ser.2:Khim. 20  
no.3:83-84 Nov-A '65. (MIRA 18:9)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

KVARTAL'NOV, Ye.V.

Harmonic analysis of observation on tidal phenomena for a  
period of many days. Okeanologiya 5 no.6:1070-1082 '65.

(MIRA 19:1)

1. Kaliningradskoye otdeleniye Instituta okeanologii AN SSSR.  
Submitted December 7, 1964.

KVARATSKHELIA, N.T.; GAMBASHIDZE, K.K.; DZHAKELI, M.Ye.

Effect of graminous and leguminous grass mixtures and organic fertilizers on the microbiological processes in subtropical Podzolic soils. Soob. AN Gruz. SSR 29 no.1:73-80 J1 '62.

(MIRA 18:5)

1. Institut pochvovedeniya, agrokhimii i melioratsii, Tbilisi.  
Submitted November 27, 1960.



S/032/60/026/05/17/063  
B010/B005

5.5310

AUTHOR: Kvaratskheli, Yu. K.

TITLE: Application of a Plasma Source to the Spectrum Analysis  
of Slags

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 5, pp. 557-559

TEXT: A new light source known in publications under the designation of "plasmatron" was used in slag analysis. The device used (Fig. 1) is a closed chamber into which gaseous argon is blown under pressure (0.4-0.7 atm) through an opening in the bottom. The rod-shaped anode is located in the chamber, and directed towards an opening in the side wall of the chamber acting as a cathode. The plasma of the d.c. arc burning between anode and cathode is blown by the gas pressure out through the opening so that the greater part of the plasma is outside the chamber forming a free flame. The latter is used as a light source for the spectrograph having a temperature of 10,000 - 11,000° K. G. M. Giannini (Ref. 1) attained temperatures up to 170,000° K at higher current

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Application of a Plasma Source to the  
Spectrum Analysis of Slags

S/032/60/026/05/17/063  
B010/B005

intensities and gas pressures. In the present case, a special construction of this light source (Fig. 3), as well as corresponding anodes (Fig. 2), were chosen, and slag analyses carried out with three variants of sample feeding: strewing of the sample powder into the gas flow, pulverization of the sample solution, and complete evaporation of the sample located in the anode. The last-mentioned variant proved to be most convenient. The experiments were made with slag samples from the arc furnace of the author's Association. The samples were analyzed in the chemical laboratories of the zavod "Elektrostal'" ("Elektrostal'" Works) and the author's Institute. A paste was prepared from the slag powder, graphite, and cobalt oxide (1:2:1) with water, and placed into the opening of the anode. The "plasmatron" worked under the following conditions: 20-22 a, pressure in the chamber 0.4-0.5 atm, electrode gap 3mm, diameter of the cathode opening 1.6 mm. An ISP-22 spectrograph was used. A Table shows the analytical lines, Fig. 4 the calibration diagrams. Line pairs with an exciting potential difference of 10-12 ev may be used as analytical lines. There are 3 figures, 1 table, and 2 references, 1 of which is Soviet. 44

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Application of a Plasma Source to the  
Spectrum Analysis of Slags

S/032/60/026/05/17/063  
B010/B005

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut  
tekhnologii i mashinostroyeniya (Central Scientific  
Research Institute of Technology and Machine Construction) *LH*

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1043, 1273, 1136

S/051/61/010/003/004/010  
E032/E514

AUTHORS: Korolev, F. A. and Kvaratskheli, Yu.K.

TITLE: The Plasmatron as a Light Source for Spectroscopic Investigations

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.3, pp.398-402

TEXT: The plasmatron employed is shown schematically in Fig.1. It takes the form of a closed chamber formed by metal rings 1 and 2 and the insulator 3. The arc is excited between the anode 5 and a graphite cathode 4 which is in the form of a washer. When argon is introduced into the chamber at a pressure of 0.3 to 0.5 atm, the discharge takes the form of the jet I, which is joined to the cathode by the thin conducting loop II and is surrounded by a corona made up of vapours of volatile substances III. A study was made of the possibility of exciting a spectrum of high melting point materials and also materials which are difficult to excite. The specimens to be investigated were in the form of slag powders mixed with  $\text{Co}_2\text{O}_3$  and graphite powder. These were inserted into the aperture in the anode and the distance between the electrodes was chosen to be 3 mm. The spectra were

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The Plasmatron as a Light Source...

S/051/61/010/003/004/010  
E032/E514

photographed in the ИСП-22 (ISP-22) spectrograph. A detailed description of the design of the plasmatron and its operation is given in Ref.13. Figs. 2a, b and c show the external characteristics of the discharge (a - dependence of length  $l$  and diameter  $d$  of the plasma on the current  $I$  at 0.7 atm and washer diameter 1.6 mm; b - dependence of  $l$  and  $d$  on the diameter  $D$  of the aperture in the washer at 20 A and 0.7 atm; c - dependence of  $l$  on the pressure  $p$ . These graphs show that temperature equilibrium exists throughout the plasmatron jet. The temperature was measured using the FeI and FeII lines for which the transition probabilities have been given by N. N. Sobolev (Ref.14). It was found that the temperature is very dependent on the gas pressure. Inspection of Figs. 2 to 4 will indicate that the plasmatron can be used for the spectral analysis of a wide class of high melting point materials and, in particular, slags. The plasmatron can also be used to determine the relative oscillator strengths. There are 7 figures, 2 tables and 16 references: 7 Soviet and 9 non-Soviet.

SUBMITTED: May 5, 1960  
Card 2/4

KAKABADZE, M.G.; LINDTROP, G.T.; BERNSTEYN, A.D.; KHORAVA, G.V.;  
KVARATSKHELIYA, G.M.

Role of farm animals in the transmission to human beings of leptospirosis of serotype II in the Abkhazian A.S.S.R. Sbor. trud. Med. nauch. ob-vo Abkh. 2:199-203 '59. (MIRA 14:10)

1. Iz leptospiroznogo otdeleniya (zav. M.G.Kakabadze) Respublikanskoy sanepidstantsii Ministerstva zdavookhraneniya Abkhazskoy ASSR (glavnyy vrach V.L.Gvaliya) i Gadautskoy infektsionnoy bol'nitsy (glavnyy vrach G.V.Khorava).

(ABKHAZIA--LEPTOSPIROSIS)  
(ANIMALS AS CARRIERS OF DISEASE)

*1. KVARATSKHILIYA, G. Ya.*

KAVTARADZE, K.N.; BERNSTEYN, A.D.; KVARATSKHILIYA, G.Ya.

Sources of leptospirosis in the Abkhazian A.S.S.R. Zhur.mikrobiol.  
epid. i immun. 28 no.9:60-63 S '57. (MIRA 10:12)

1. Iz Sukhumskoy mediko-biologicheskoy stantsii AMN SSSR i Respubli-  
kanskoy sanitarno-epidemiologicheskoy stantsii Abkhazskoy ASSR.  
(LEPTOSPIROSIS, transmission,  
carriers (Rus))

KAKABADZE, M.G.; BERNSTEYN, A.D.; KVARATSKNELIYA, G.Ya.

Sources of leptospirosis in the Abkhazian A.S.S.R. Sbor. trud. Med.  
nauch. ob-vo Abkh. 2:189-197 '59. (MIRA 14:10)

1. Iz leptospiroznogo otdeleniya (zav. M.G.Kakabadze) Respublikanskoy  
sanepidstantsii Ministerstva zdravookhraneniya Abkhazskoy ASSR  
(glavnyy vrach V.L.Gvaliya).  
(ABKHAZIA—LEPTOSPIROSIS)



KVARATSKHELIYA, I.F.

Problem on determining the tropopause. Meteor. i gidrol. no.6:  
30-32 Jo '56. (MIRA 9:9)  
(Atmosphere)

KVARATSKHELIYA, I. F.

Kvaratskheliya, I. F., Tsutskiridze, A. Ya., and Kurdiani, I. G.  
(State University Tbilissi), "The Results of Works in the field of the  
Aeroclimatic Characteristic of the Free Atmosphere, on the Analytical  
Method of the Treatment of Observations with Pilot Balloons and Distribution  
of Clouds in Georgia."

Report presented at the Scientific Session of Tbilisi Scientific Research  
Institute for Hydrometeorology, May 1957. (Meteorologiya i Gidrologiya,  
No. 1, 1958.)

KVARATSKHELIYA, I.F.

~~Diurnal~~ Variation of certain meteorological elements over Tiflis.  
Trudy Tbil. NIOMI no.2:119-132 '57. (MIRA 11:4)  
(Tiflis--Meteorology)

50-58-4-5/26

AUTHOR: Kvaratskheliya, I. F.

TITLE: The Characteristic Changes of Atmospheric Temperature Over the Southern Areas of the Soviet Union in Altitudes of the Annual Amplitude (Osobennosti izmeneniya s vysotoy godovoy amplitudy temperatury vozdukha nad yuzhnymi rayonami SSSR)

PERIODICAL: Meteorologiya i Gidrologiya, 1958, Nr 4, pr 21 - 23 (USSR)

ABSTRACT: Table Nr 1 and Figure Nr 1 show the amplitudes of annual changes in temperature in altitudes of from 0 to 15 km in Tbilisi, Baku and Tashkent. These towns are nearly situated on the same latitude but have a differentiated climate. Thereof in an illustrative way result several peculiarities of the zonal and vertical changes of these amplitudes. The amplitudes modify within wide limit on the surface of the earth. These facts fall into line with the general climatic conditions of the areas in question. From 4 km onwards the annual amplitudes of the mentioned towns show fairly equal values. Moreover, the amplitudes in the lower atmospheric layers decrease with the altitude. Then they increase gradually and reach maximum values (23 - 25°) in altitudes of 10 km exceeding the values

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50-58-4-5/26

The Characteristic Changes of Atmospheric Temperature Over the Southern  
Areas of the Soviet Union in Altitudes of the Annual Amplitudes

on the ground. Higher than 10 km the amplitudes decrease rapidly and oscillate in altitudes of 15 km between 7 and 9°C. The magnitude of the annual amplitude in the first kilometers is strongly influenced by the surface of the earth. The magnitude of the amplitude is influenced by the temperatures of the air masses prevailing during the hottest and coldest months. The individual, periodical penetrations of relatively cold masses of air in summer-time concern in general the lower and middle layers of the air. The increase of the amplitude in the lower half of the troposphere can be explained to a certain extent. Table Nr 2 shows the monthly changes of temperature in the same altitudes for Tbilisi. Accordingly the troposphere is rather intensively heated from April until July and cools down in the second half of the year. Both processes proceed according to individual altitude steps and with a different intensity. Particular interest is focused on the fact that the farther layers of air are more intensively heated from May until June and from June until July than the lower ones. According to the author's opinion these facts play a greater part in heat supply because of advective-dynamic processes compared with the heat radiated

Card 2/3

50-58-4-5/26

The Characteristic Changes of Atmospheric Temperature Over the Southern Areas of the Soviet Union in Altitudes of the Annual Amplitudes

by the surface of the earth. During the summertime mainly south-west winds blow over Tbilisi in altitudes of 3 - 4 and 8 - 9 km which carry considerable amounts of heat into the upper half of the troposphere. The process of cooling the troposphere sets in intensively from August until September but at first in the upper half. This gives way to the explanation of a rapid deterioration of the heat supply from the earth and of the winds of this season. There are 1 figure, and 2 tables.

AVAILABLE: Library of Congress

1. Atmosphere - Temperature
2. Climate - Temperature factors
3. Climate - USSR

Card 3/3

S/169/60/000/011/010/016

A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 11, pp. 124-125,  
# 14161

AUTHOR: Kvaratskheliya, I.F.

TITLE: The Properties of the Temperature Conditions and the Local Circulation of the Atmosphere Over Sukhumi ✓


PERIODICAL: Tr. Tbilissk. nri. gidrometeorol. in-ta, 1959, No. 4, pp. 93-111

TEXT: Investigation results of the temperature conditions are presented according to radio-sounding data obtained in 1947-1953 and the wind conditions from observations in the summer season in 1951-1954. The amplitudes of the annual temperature fluctuations over Sukhumi, Tbilisi, Baku, and Tashkent show a sharp distinction near the Earth's surface, vanishing at the altitude of 4 km. The temperature distribution over the altitudes in winter and summer has no considerable distinctions over Sukhumi, Tbilisi and Baku. The comparison of the vertical temperature distribution in Sukhumi, Moscow, and Murmansk shows characteristic properties in the meridional structure of the temperature field of the atmosphere. Radiation inversions and others were observed in Sukhumi during the Card 1/3 ✓

S/169/60/000/011/010/016  
A005/A001

The Properties of the Temperature Conditions and the Local Circulation of the Atmosphere Over Sukhumi

whole year. Tables are added on the frequency of the altitude of the lower boundary of inversions and thermal equalities, the days with inversions, their power and intensity. The diurnal course of the temperature over Sukhumi is traced in winter up to 1 km altitude, in autumn and summer up to 2-3 km. The orographic properties of the Sukhumi region cause breezes and mountain-valley winds. Either wind blowing in the same direction, reverses its direction in the morning hours. Thereby, the high frequency of calms in the morning hours (66%) is explainable, which decreases by the evening down to 10% and increases anew in the later evening hours. The diurnal course of wind direction is traced in summer up to altitudes of 1 - 1.5 km. The frequency of the west wind changes in the ground layer from 1 - 7% in the morning up to 20 - 60% by 17.00 hours; the east wind frequency decreases from 20 - 30% in the morning down to 3 - 5% in the evening. During 24 hours, the south-east wind predominates in the 1 - 3-km-layer, the west wind in higher than 3 km layer. The high frequency of the south-east and east winds is caused by the deviation of the west current to the right by the Main Caucasus ridge. This current deviated and directed along the ridge converges in the moun-



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3/169/60/000/011/010/016  
A005/A001

The Properties of the Temperature Conditions and the Local Circulation of the Atmosphere Over Sukhumi

tain passes and furthers the orographic local pressure increase, giving thereby rise to the inverse air diffuence. The average wind speeds up to 1 km altitude increase in the day hours (from 5 to 17 hours). In the 1.5 - 4-km-layer, the average wind speeds in daytime are lower than those in the morning. This is explainable by the turbulence developing in daytime at the mountain slopes, which causes the inverse currents.

V. Shtal'

Translator's note: This is the full translation of the original Russian abstract.

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KVARATSKHELIYA, I.F.

Genesis of laminated structure of the tropopause. Trudy Tbil.NIGMI  
no.5:62-90 '59. (MIRA 13:6)  
(Tiflis--Atmospheric temperature)

KVARATSKHELIYA, I.F.

Effect of the main Caucasian range on the temperature regime of the  
free atmosphere over the central part of Transcaucasia. Trudy Tbil.  
NIGMI no.5:102-106 '59. (MIRA 13:6)  
(Mineral'nyye Vody--Atmospheric temperature)  
(Tiflis--Atmospheric temperature)

KVARATSKHELIYA, I.F.

Characteristics of altitudinal variation of some meteorological  
elements over Tiflis. Trudy Tbil.NIGMI no.6:69-77 '59.  
(MIRA 13:5)

(Tiflis region--Meteorology)

S/169/62/000/011/050/077  
D228/D307

AUTHOR: Kvaratskheliya, I.F.

TITLE: Main climatic features of the free atmosphere over the Georgian SSR

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1962, 76, abstract 11B240 (Tr. Tbilissk. n.-i. gidrometeorol. in-ta, no. 10, 1962, 25-70)

TEXT: The author examines the temperature, pressure and air humidity conditions according to radiosonde data for Sukhumi in 1947-1952 and Tbilisi in 1938-1952 and the wind regime according to pilot balloon observations at Sukhumi, Batumi, Kutaisi and Tbilisi. The ground-surface temperature distribution caused by physico-geographic peculiarities of the Georgian SSR is distinguished by great diversity, which becomes smoother from a height of 3-4 km. In January the average ground-surface temperature varies from 5.9° at Sukhumi to 1.2° in Tbilisi. The temperature over both points reaches -10° at a height of 3 km, but falls to -54° at a height of 10 km. ✓

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Main climatic features ...

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On the ground the mean July temperature is  $23.8^{\circ}$  at Sukhumi and  $24.1^{\circ}$  at Tbilisi. It equals  $-31.7^{\circ}$  and  $-30.5^{\circ}$  respectively at a height of 10 km and  $-51.4^{\circ}$  and  $-53.7^{\circ}$  respectively at a height of 15 km. The minimum temperature in January varies from  $-7^{\circ}$  (Sukhumi) to  $-14^{\circ}$  (Tbilisi) on the ground and respectively from  $-59^{\circ}$  to  $-65^{\circ}$  at a height of 10 km. In July it varies from  $14^{\circ}$  to  $16^{\circ}$  on the ground and  $-51^{\circ}$  to  $-48^{\circ}$  at a height of 10 km. The amplitude of the mean annual temperature changes from  $17.9^{\circ}$  at Sukhumi to  $22.9^{\circ}$  at Tbilisi. The range diminishes with altitude in the first bottom layers of the troposphere, then starts to increase, and reaches a maximum at a height of 10 km. The vertical gradients and diurnal variation of the temperature are considered, as is the temperature difference in the free atmosphere and at alpine stations. The bottom of the tropopause was defined by a vertical temperature gradient equal to  $0.20^{\circ}/100$  m; the height, where isotherms of large thickness begin was taken for its top. At Tbilisi the average height of the bottom of the tropopause fluctuates from 10 km in January to 15.9 km in July. Its actual values were observed at heights from 7-8 to 17-18 km. The air pressure decreases with altitude by 9.0-9.5 mb

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Main climatic features ...

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per 100 m in the layer up to 5 km, by 5.5 mb in the layer 5-10 km, and by 3 mb in the layer 10-15 km. The average pressure equals 537 mb at a height of 5 km, 259-261 mb at a height of 10 km, and 120 mb at a height of 15 km over Tbilisi. In July the average pressure at heights of > 1 km is higher than in January. During the year minimum specific humidity values are observed in January. The average January specific humidity varies from 4.2 g/kg near Sukhumi to 3.2 g/kg at Tbilisi on the ground and from 0.6 to 0.7 g/kg at a height of 5 km. On the ground the average July specific humidity changes from 14.3 (Sukhumi) to 10.9 g/kg (Tbilisi); at a height of 5 km it varies respectively from 2.9 to 2.8 g/kg. Near Sukhumi the moisture saturation from the ground to a height of 4-5 km is higher in summer than in winter. The effect of local winds that are observed in many Georgian districts is smoothed as one moves away from the ground and becomes scarcely noticeable at a height of 3-4 km. Winds of the easterly quarter prevail (70%) to a height of 1.5-2.0 km in winter in the vicinity of Sukhumi. The frequency of westerly winds increases in summer. Winds of the westerly quarter prevail from a height of 3-4 km. At a height of 5 km their frequency is

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Main climatic features ...

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72% in January and 74% in July. At Tbilisi north-westerly (> 40%) and south-easterly (~ 30%) winds predominate to a height of 1.0-1.5 km in winter and summer; above 2 km in winter and 4 km in summer strong winds (> 30 m/sec) mainly have the directions of the westerly quarter. In winter in the layer 0-1 km the average wind speed reaches 5-8 m/sec, i.e. 2.5 times higher than at Sukhumi. The author reckons the observed maximum wind speeds (35 m/sec in winter and 50 m/sec in summer at Tbilisi at a height of 10 km) to be too low, since pilot balloons were launched at a weather-vane wind speed of not more than 20 m/sec (at one of up to 24 m/sec at Kutaisi).

[ Abstracter's note: Complete translation ]

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*Kvaratskheliya, I. F.*

AID Nr. 981-3 3 June

CONFERENCE AT CENTRAL AEROLOGICAL OBSERVATORY (USSR)

Meteorologiya i gidrologiya, no. 3, 1963, 60. S/050/63/000/004/002/002

The following are among the reports presented at a recent session of the Scientific Council of the Central Aerological Observatory: 1) N. Z. Pinus -- an experimental investigation of the wind field at altitudes of 7 to 11 km, certain peculiarities of the mesostructure of the wind field, and the statistical characteristics of horizontal and vertical wind fluctuations in the jet stream zone in different regions of the European USSR and Siberia; 2) S. M. Shmeter -- the process of cumulonimbus cloud development and a proposed model of the structure of the fields of meteorological elements near the upper third of such clouds at different stages of development; 3) V. D. Reshetov -- the use of hydrodynamic equations for determining the interdependence of ageostrophic, nonstatic, and nonstationary atmospheric motions and a more

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AID Nr. 981-3 3 June

CONFERENCE AT CENTRAL AEROLOGICAL [Cont'd]

S/050/63/000/004/002/002

accurate form proposed for writing such equations; 4) I. F. Kvaratskheliya -- conditions for the formation of sharp changes of vertical wind shear in the upper half of the troposphere over the Transcaucasus; 5) A. I. Ivanovskiy and A. I. Repnev -- the hydrodynamics of the upper atmosphere, taking into account the chemical reactions occurring under solar influence; 6) V. V. Kostarev, A. M. Borovikov, and A. B. Shupyatskiy -- certain radar criteria for identifying the hail content of clouds and criteria for evaluating the effect of cloud modification; and 7) A. G. Gorelik -- certain results of radar investigations of the wind field at altitudes of 50 to 700 m. [ET]

Card 2/2

ACCESSION NR: AR4015482

S/0169/63/000/012/B088/B088

SOURCE: RZh. Geofizika, Abs. 12B460

AUTHOR: Kvaratskheliya, I. F.

TITLE: Influence of physico-geographic conditions in the Caucasus on the temperature regime of the free atmosphere

CITED SOURCE: Tr. Zakavkazsk. n.-i. gidrometeorol. in-ta, vy\*p. 11, 1963, 54-59

TOPIC TAGS: temperature regime, free atmosphere, physico-geographic conditions, atmospheric temperature sounding, air temperature, Kazakhstan

TRANSLATION: It is shown that physico-geographic conditions in Kazakhstan have a direct influence on the regime of air temperature in only the first lower kilometers. This conclusion was made after a detailed consideration of the problem based on temperature sounding of the atmosphere during January and July in 1953 and 1954. At high altitudes, the atmosphere's temperature regime is determined by the general circulation which is characteristic for this region. B. Yakovlev.

DATE ACQ: 09Jan64

SUB CODE: AS, PH

ENCL: 00

Cord 1/1

ACCESSION NR: AR4015483

B/0169/63/000/012/B089/B089

SOURCE: RZh. Geofizika, Abs. 12B461

AUTHOR: Kvaratskheliya, I. F.

TITLE: Notes on climatic characteristics of the free atmosphere over the Armenian SSR

CITED SOURCE: Tr. Zakavkazsk. n.-i. gidrometeorol. in-ta, vy\*p. 12, 1963, 21-42

TOPIC TAGS: climatic characteristics, free atmosphere, air temperature, wind speeds, air pressure, tropospheric heating, stratospheric heating, atmospheric heating, orography, gradient temperature

TRANSLATION: Characteristics on the distribution of temperature, pressure, humidity and wind over the Armenian SSR are given according to radiosonde data in Yerevan for 1949-1953 and pilot balloon observations for 1933-1935, 1937, and 1939-1952 in Yerevan and for 1946-1952 in Mazra. The mean air temperature at altitudes up to 15-km has a well-expressed annual variation with a minimum at altitudes of 0-9 km in January, and higher in February; a maximum up to an altitude of 4-km in July-August, and higher in August. The Armenian highlands influence the temperature regime of

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ACCESSION NR: AR4015483

Yerevan. This influence can be traced in winter up to altitudes of 2-3 km, and in summer up to 4-5 km. The difference in mean temperatures in January between Yerevan and Tbilisi drops from  $-5.4^{\circ}$  near the earth to  $-1.2^{\circ}$  at an altitude of 3-km, and above this it fluctuates within small limits. In summer at altitudes of 1-2 -km in Yerevan it is  $4-5^{\circ}$  warmer than in Tbilisi, and in the layer between 6-10-km this difference drops to  $1^{\circ}$ . The process of heating in the troposphere and the lower stratosphere begins with March but the increase in temperature occurs especially rapidly from March to April (up to 3-km by  $7-8^{\circ}$ , and above this by  $3-6^{\circ}$ ). Intense atmospheric heating in July is noted, and in addition the atmospheric layers remote from the earth are more intensely heated from May to July (at altitudes of 9-12-km by  $13-16^{\circ}$ ) than the lower-lying layers (by  $8-10^{\circ}$ ). A similar phenomenon was noted also over Tbilisi which was explained as due to advective factors. Atmospheric cooling is especially noticeable in September and it begins with the upper troposphere (at altitudes of 8-12-km by  $6-7^{\circ}$ , and below this by  $4^{\circ}$ ). In the following months the most intense cooling is noted in the lower 3-km layer. Extremal values of temperature at an altitude of 5-km fluctuate from  $-38^{\circ}$  to  $-9^{\circ}$ , and at 10-km, from  $-64^{\circ}$  to  $-21^{\circ}$ . The annual temperature amplitude in Yerevan is larger than at other points where sounding was made in the Transcaucasus. Up to 4-km it decreases, but above, it fluctuates from  $1-2^{\circ}$ . In all points up to 5-6-km the amplitude decreases, but thereafter up to 10-km it again increases. In the cold six months of

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ACCESSION NR: AR4015483

the year, small vertical temperature gradients are noted in the lower 2-km layer, which are caused by cooling of the lower layers and in the summer months from the earth up to 4-5 km the mean monthly gradients exceed the adiabatic moisture gradients. The tropopause height increases from 10-11 km in winter to 15-16 km in summer. The annual pressure variation corresponds to the temperature variation. The annual pressure amplitude (from mean monthly data) decreases from 13 mb near the surface of the earth to 6-7 mb in the 1.5-2.0 km layer and thereafter increases to 21-26 mb at altitudes of 6-13 km. The variation of moisture content also corresponds to the change in temperature. The specific humidity of the air up to 1.5-2.0 km slowly drops with altitude and above this the drop occurs rapidly. In winter the relative humidity is higher than in summer. The annual range of mean monthly values of relative humidity decrease from 30-40% in the lower 5-km layer to 20-30% in the layer between 5-10 km. The influence of physico-geographic conditions on the wind regime over Yerevan and Mazra in the winter months extends to an altitude of 2-km and in summer up to 4-km (winds from southern and eastern directions predominate). Higher winds from the western quarter are most frequent. Minimum wind speeds in the lower 2-km layer of the air are noted in winter in connection with the stand-still of cold air. Maximum speeds in this layer are observed in July-August during intensive development of mountain-valley circulation. In the 2-7 km layer greatest speeds are noted in the cold half of the year. A. Buz.

DATE ACQ: 09Jan64

SUB CODE: AS, PH

ENCL: 00

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KVARATSKHELIYA, I.F.

Jet streams and the conditions of the formation of sharp vertical shears of velocity in the upper half of the troposphere over Transcaucasia. Trudy TbilNIGMI no.15:21-52 '64.

(MIRA 18:10)

I 16228-66 EWP(1)/PCC GW  
 ACT NR: AR5016457

UR/0169/65/000/005/BO41/DO42  
 551.557.5

SOURCE: Ref. zh. Geofizika, Abs. 68255

AUTHOR: Kvaratskheliya, I.F.

TITLE: Jet currents and conditions leading to the formation of vertical shifts in wind velocities in the upper half of the troposphere above Transcaucasia

12,44:55  
 CITED SOURCE: Tr. Zakavkazsk. n.-i. gidrometeorol. in-ta, vyp. 15(21), 1964, 21-52

TOPIC TAGS: wind, jet stream, wind direction, wind velocity, atmospheric current, troposphere, atmospheric front

TRANSLATION: After a year of probing, statistical characteristics were obtained for jet currents and vertical wind shifts above Tbilisi. The maximum repetition of jet flows occurs at the end of summer and in autumn. The altitude of the axis of a jet above Transcaucasia is 11-12 km in summer, and 10 km in winter; the velocity of the wind is 40-42 m/sec in winter, and in summer (July through September) it is 44-51 m/sec. The maximum velocities do not exceed 60 m/sec in January or 51 m/sec in December. The maximum recurrences over Transcaucasia are registered for south-eastward currents, and the minimum for north-westward currents. No eastward currents were noted. The maximum recurrences of sharp vertical wind shifts occurred at the end of summer and autumn, i.e., during the period of maximum occurrences of jet flows. The average al-

Cord 1/3



L 16728-66

ACC NR: AR5010457

altitude of the lower boundary of sharp positive shifts in winter was about 7 km in winter and 8-9.5 km in summer. At the start of positive shifts, the average altitude is 2-3 km lower than the altitude of the jet axis. The average altitude of the jet axis with a sharp positive shift is 9 km in winter and 11 km in summer; the average range of the shift is 14-15 m/sec per 1 km. The lower boundary of sharp positive shifts is most frequently found at levels from 6 to 11 km. There are cases, occurring either in winter or in summer, when the boundary descends to 4-5 km. In summer it may rise to 12-13 km. Therefore, planes flying above Transcaucasia are apt to encounter bumps within a wide range of altitudes. Sharp positive shifts begin at a great variety of wind velocities, at their lower boundaries: Sharp shifts have been registered at 3-10 m/sec, as well as at 30 m/sec. Negative shifts begin mostly at altitudes of 10-11 km. In summer, no sharp decrease in wind velocities is observed below 12-13 km. The following characteristics of both sharp positive shifts and sharp negative shifts of over 25 m/sec are described: The relation to the altitude of the jet, the average velocity of wind at the lower boundary, altitude of the lower boundary, average velocity of the wind in a jet flow, and the altitude of the tropopause. It was concluded that sharp vertical shifts are observed not in the vicinity of the jet axis altitude, but in the zones of frontal division. In order to judge the possible location of the zone of great shifts, it is sufficient to know the spacial location of tropospheric fronts. The conditions leading to the formation of vertical shifts are analogous to the conditions necessary for originating jet flows. In winter, the basic factor in the formation of jet flows above Transcaucasia lies in meridional.

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1 16728-66

ACC NR AR5016457

processes and a simultaneous flux of cold towards the southern parts of the European Territory of the Soviet Union, which cause great contrasts in temperatures (maximum at a 5 km level). In summer, the basic reason leading to the formation of jet flows is in the influx of tropical air and the formation of a latitudinally located frontal zone, which sometimes encircles the whole earth. In summer, the greatest horizontal temperature gradient ( $1.21^{\circ}/100$  km) is located at an altitude of 9-10 km, which results in a staggered increase in wind velocity. In the upper troposphere, the horizontal gradients of temperatures are greater than in winter. This phenomenon explains the fact that despite general opinion, the average velocities above moderate latitudes are encountered more in summer than in winter. 25 references. D. Morozov.

SUB CODE: 04/

~~SECRET~~  
SUBM DATE: none

Card 3/3 *net*

L 28487-66 EPF(n)-2/ENT(1)/ENT(m)/ETC(f)/EWG(m) IJP(c) AT

ACC NR: AP6013136

SOURCE CODE: UR/0057/66/036/004/0759/0762

AUTHOR: Kvartskhava, I.F.; Meladze, R.D.; Khautiyev, E.Yu.; Reshchetnyak, N.G. 58  
B

ORG: none

TITLE: On reasons for the limitation of the velocity of <sup>2</sup>plasmoids <sup>2</sup>in <sup>19</sup>rail accelerators

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 4, 1966, 759-762

TOPIC TAGS: plasma accelerator, plasma acceleration, rail accelerator, plasmoid, plasma gun

ABSTRACT: It is suggested that the reason why the velocities of plasmoids in rail accelerators are more than an order of magnitude lower than the possible stationary drift velocities in the crossed fields is that not one plasmoid, but a chain of successive plasmoids, is formed in the accelerator. Experimental data are reviewed which indicate that a number of plasmoids are in fact produced; the failure to observe multiple plasmoid production in some experiments is ascribed to the complexity of the phenomena that can arise. The mechanism of multiple plasmoid production is discussed. The repeated breakdowns giving rise to the successive plasmoids reduce the applied potential, limit the velocity of the plasmoids, and regulate the quantity of accelerated plasma. It is argued that currents will circulate between the successive plasmoids of the chain, as a result of which most of the discharge current will be carried by the first and last plasmoids of the chain and the intervening ones will not

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UDC: 523.9

L 28487-66

ACC NR: AP6013136

0  
interact strongly with the magnetic field. If there is gas ahead of the first plasmoid a hydrodynamic shock front will be formed; otherwise the first plasmoid can reach a velocity considerably exceeding the drift velocity of the intermediate ones. The presented picture of the phenomena in a rail accelerator is somewhat oversimplified; it will be elaborated and complicating phenomena will be discussed in future articles. Orig. art. has: 2 figures.

SUB CODE: 20

SUBM DATE: 22Oct65

ORIG. REF: 004

OTH REF: 006

Card 2/2 11

KVARATSKHELIYA, I.

"Determination of a rational type of primary unit for mountain rivers."

Dissertation for Candidate of Technical Sciences, Azerbaydzhan Institute, Baku, (AKII)

Subject: Hydroengineering building and construction

Gidrotekhnicheskoye, stroitel'stvo, 12, 1946.

KVARATSKELIYA, L.

USSR/Farm Animals - Silk-Worms.

Q-9

Abs Jour : Ref Zhur - Biol., No 1, 1958, 2697

Author : L. Kvaratskeliya

Inst :

Title : A Determination of the Silk-Worm Egg Yield by the Average Weight of the Cocoons.

Orig Pub : Tr. Gruz. s-kh. in-ta, 1955, 42-43; 398-399

Abstract : The higher is the average weight of the cocoons, the higher is the fertility of the emerging females.

Card 1/1

"Figs of Abkhaziya." Cand Biol Sci, Inst of Botany, Acad Sci Georgian SSR, 27 Dec 54. (ZV, 17 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

. KVARATSKHELIYA, M.S.

Self-fertility and self-sterility in seedlings of certain feijoa varieties. Agrobiologiya no.5:782-785 S-O '60. (MIRA 13:10)

1. Sukhumskaya opytaya stantsiya subtropicheskikh kul'tur.  
(Feijoa) (Fertilization of plants)

KVARATSKHELIYA, M.S.

Biology of the fertilization of pecan in humid subtropical areas.  
Agrobiologiya no.1:151-154 Ja-F '62. (MIRA 15:3)

1. Sukhumsкая опытная станция субтропических культур.  
(Fertilization of plants) (Pecan)



KVARATSKHELIYA, M. T.

DAVYDOV, P.G., kandidat sel'skokhozyaystvennykh nauk; KVARATSKHELIYA, M.T.,  
kandidat sel'skokhozyaystvennykh nauk.

Using the Davydov universal seed disinfectant (PU-1) for coating  
seeds with phosphobacteria. Dokl.Akad.sel'khoz.22 no.5:44-48 '57.  
(MLRA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennoy  
mikrobiologii. Predstavleno akademikom I.I.Samoylovym.  
(Seeds) (Bacteria, Phosphorus)

KVARATSKHELIYA, M.T.

Efficient methods of bacterizing seeds with dry phosphobacterin.  
Trudy Vses. inst. sel'khoz. mikrobiol. no.14:252-256 '58.

(MIRA 15:4)

(Bacteria, Phosphorus) (Soil inoculation)

KVARATSKHELIYA, M.T.

Simultaneous treatment of seeds with phosphorobacterin and  
disinfection with granosan. Zemledelie 24 no.7:53-55  
Jl '62. (MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut  
sel'skokhozyaystvennoy mikrobiologii. - (Granosan)  
(Seeds—Disinfection) (Bacteria, Phosphorus)

KVARATSKHELIYA, M.T.

Effectiveness of bacterial fertilizers. Mikrobiologiya 31 no. 6:  
1102-1106 N-D '62. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokho-  
zyaystvennoy mikrobiologii.  
(SOIL INOCULATION)

CLASSIFICATION	<p><i>C/A</i></p> <p>Adsorption of phosphoric acid by red earths N. Kvaratskhelia. <i>Priroda. Akad. Sel'sko-Khoz. Nauk Leninizma, Nauch.-Issledovatel. Inst. Edobrenit, Agrotekh. i Agropromyshlennaya Geodolgia, Trudy Leningrad. Otdel.</i> 1938, Pt. 1, 36-48; <i>Chem. Zvezd.</i> 1940, II, 1923-4.—The adsorptive capacity of red earth for phosphoric acid was found to be approx. 1 g. P<sub>2</sub>O<sub>5</sub> per 100 g. of soil. The total phosphoric acid was firmly combined and could not be washed out with water. The values obtained offer the possibility of developing an accurate method for the detn of the adsorptive capacity of soils for phosphoric acid Expts. on desorption gave results in agreement with the desorption curves of Yakovleva (cf. C. I. 34, 42XP) and the cit. zone of Tyulin (cf. C. I. 31, 1110Y).</p> <p>M. G. Miron</p>	<p>14</p>	<p>INDEX AND THE NUMBER</p> <p>INDEX AND THE NUMBER</p>
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KVARATSKHELIA, M.T.

Growth of sprouts on a lemon tree. Soob.AN Gruz.SSR 8 no.7:447-451  
147. (MIRA 9:7)

1.Akademiya nauk Gruzinskoy SSR, Botanicheskiy institut, Tbilisi.  
Predstavleno chlenom-korrespondentom Akademii D.I.Sosnovskim.  
(Lemon)

CA

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Role of organo-mineral compounds in structure formation of subtropical podzolic soils. M. I. Kozlovskiy, *Izvestiya Vsesoyuznogo Nauchno-Issledovatskogo Instituta Pochvedovedeniya*, 1964, No. 1, 1-10 (Russian). N. S. K. J. 22 42 (1964) (Georgian with Russian summary). Org. fertilizers did not affect soil structure, whereas perennial grasses did. The roots of such grasses acted twofold: while still growing they sepal the soil particles and bind them thereby forming aggregates, and the dead roots formed humic substances which imparted water resistance to the aggregates. Only under favorable conditions of decomposition (partly anaerobic) and in soils having a natural aggregate structure, e.g., red soils, weakly podzolic on clay shales, and

in some others, did manure form stable organo-mineral compounds, greatly improving their phys. properties.  
M. Hosh

CA

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The mechanism of structure formation with perennial  
grasses under conditions of the humid subtropics of the  
Hinter-Caucasia. N. Kvaratskhelia. *Pechevskaya* 1951,  
68: 9. In a comparative study of the structural stability of  
podzolized, chernozem, and subtropical red-loam soils some  
of the humid subtropic soils have proved to possess a high  
microstructure stability when compared with the podzolized  
soils. It is suggested that the phenomenon can be ex-  
plained on the basis of the formation of organomineral  
compounds, specifically humic acid and mobile  $R_{2O}$ .

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Perennial grasses in humid, subtropical regions, Korm.baza. 3 No. 6, 1952

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